

June 9, 1949.

Dear Max:

I am sending W-206, which is an "F-2" heterozygote inbred: i.e., it is derived by crossing two segregants from the original H-1. This stock was prepared to test the "translocation theory" which I outlined at Cincinnati. In order to facilitate the analysis, a Mal- mutation was induced in one of the segregants (~~W-478~~ W-478) used as a parent, so that W-206 is heterozygous both for Lac<sub>1</sub> and for Mal. However, the Mal mutation is definitely not the same as the one in the previous crosses, which has always come out hemi-zygous. The segregation data for Lac and Mal are quite abnormal for W-206, so the translocation theory is not substantiated. However, it may be an interesting culture for single cell work because it is an F2, and because the segregation ratios for Lac and Mal/- are as close to equal as I have yet seen. The abnormality is in the co-segregations: The relative frequencies, in %, of the possible combinations of Lac and Mal are:

	Lac-	Lac <sup>+</sup>
Mal-	31	0
Mal <sup>+</sup>	<u>38</u>	<u>31</u>

More than in any other stock, I think there is a chance here of picking up correlated segregations, or at least, different kinds of segregants.

Unfortunately, my stock of H-168 has completely dissociated, and I have been unable to recover the heterozygote. Peculiarly, 6-111, which is presumably a single cell isolate from it, is pure Xyl-, although segregating for Lac, Mtl, etc., and I wonder if a "partial" segregation may not have occurred. It is also conceivable that H-168 originally was a mixture of two heterozygotes, one Xyl<sub>1</sub>, the other Xyl<sub>2</sub>, and to check these points I am very anxious to try to recover as early a stock as possible. That was the occasion for the airmail post card.

The story is at least as enigmatic as ever.

Sincerely,